FOR IMMEDIATE RELEASE

VETRONIX CORPORATION LAUNCHES THE CRASH DATA RETRIEVAL (CDR) SYSTEM

SANTA BARBARA, Calif., March 9, 2000 -- Vetronix Corporation, a leading provider of automotive diagnostic equipment, today unveiled the Crash Data Retrieval (CDR) System. An innovative hardware and software product that allows anyone with a computer to download vehicle-specific accident data from General Motors vehicles involved in an air bag deployment or near deployment collision.

The CDR System collects the information stored on the airbag sensing and diagnostic module, interprets relevant portions, and presents it in easy to understand graphical and tabular formats. Using a proprietary decoding algorithm, the CDR System is able to present such information as vehicle speed, engine RPM, throttle and brake data in one second increments for the five seconds preceding the crash. Additionally, for some airbag modules, the CDR System shows the change in velocity, or delta-V, immediately after the impact. Other features in some air bag modules include seatbelt usage, status of the Malfunction Indicator Light (MIL) on the dashboard, and whether or not the passenger's airbag was disabled.

"The CDR System is an incredibly simple way to access the information stored on the vehicle's airbag module," said Jim Zaleski, president of Vetronix Corporation. "it helps vehicle owners, professional accident reconstructionists, vehicle safety engineers, insurance adjusters, fleet managers, law enforcement, car rental agencies, or any other authorized individual to understand what occurred in a crash. This information was not easily retrieved and interpreted prior to this. The CDR System will greatly improve the speed and accuracy in reconstructing accidents."

Mr. Zaleski added, "The CDR System allows you to collect objective, accurate data on crashes to enhance reconstruction analysis. This opens the door to a new generation of understanding and modeling automobile accidents. It also allows vehicle safety researchers access to greatly expanded crash data. The potential impacts of this product are immense since about 18,000 tow-away crashes occur daily."

How the CDR System Works

For many years, airplane crash investigators have had the benefit of retrieving data from the flight-data recorder. This information has proven invaluable for helping to determine what happened in the critical time before a crash.

In 1997, the National Transportation Safety Board (NTSB) made the recommendation that vehicle manufacturers and the National Highway Traffic Safety Administration work together to gather information on vehicle crashes using on-board collision sensing and recording devices. As a result, General Motors expanded the data downloaded to permanent memory in the air bag sensing and diagnostic module at deployment or in a near deployment collision. Since 1973, when GM first introduced air bag-equipped cars, some crash data has been recorded. As explained in the owner's manuals of GM vehicles, the amount of recorded data has expanded with time and technology. The capability to record pre-crash data was included with some 1999 GM vehicles following the NTSB's recommendation. The Vetronix CDR System helps further the NTSB's recommendation by creating a product that downloads the data stored in recordable airbag modules.

General Motors has authorized Vetronix Corporation of Santa Barbara, California, to develop software, hardware and interface cables to allow the recorded data to be downloaded to commonly used computers. Data useful to researchers and investigators, such as delta V, driver seat belt usage, and pre-impact data is stored and displayed in an easy-to-read format. This new tool also allows the investigator to input other pertinent information, such as weather conditions, and export the data to a remote database. Interface cables that connect directly to the airbag module are available for vehicles that cannot be powered up after a crash.

About Vetronix Corporation

Vetronix Corporation is a leading supplier of products to the worldwide automotive service industry. In particular, Vetronix is engaged in the design, manufacture and distribution of diagnostic test equipment and service management systems for professional automotive service providers. Vetronix is active in both the OEM-affiliated and aftermarket segments of the industry. Additionally, Vetronix is a leading supplier of "In-Vehicle" products, such as REVIEW, a wireless telemetry unit that allows fleet managers to monitor and control certain aspects of the vehicle's operation, including vehicle location (via GPS), fuel consumption, vehicle speed, mileage, engine status, air bag deployment and diagnostic status. The company, founded in 1984, is privately held with its corporate headquarters in Santa Barbara, California. In addition to the Santa Barbara-based operations, Vetronix also maintains offices in Tokyo, Atlanta and Detroit. For more information, or to order a CDR System, call 800321-4VTX ext. 3111; fax 805-965-3497; or visit www.vetronix.com.

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URL: http://www.vetronix.com

from the Vetronix Web site for Crash Data Retrieval systems
http://www.invehicleproducts.com/cdr.html

The Vetronix Crash Data Retrieval (CDR) system, setting the standard for accurate and reliable products designed to help professional accident reconstructionists, law enforcement, the insurance industry, and others do their jobs better and faster.

CDR System

The Vetronix Crash Data Retrieval (CDR) system downloads pre- and post- crash data from the vehicle's airbag module. The Windows™ based CDR software presents this information in an easy to read format. Leveraging Vetronix's industry-leading vehicle interface technology to the accident reconstruction indystry, this innovative tool will revolutionize how accident investigations are peformed. Expandable, accurate, powerful and reliable, the CDR system is essential for anyone involved in reconstructing accidents.

FAQs

Crash Data Retrieval (CDR) system

Q: What is the Vetronix CDR system?

A: The Vetronix Crash Data Retrieval (CDR) system consists of hardware and software that downloads pre- and post-crash data from the vehicle's airbag module (SDM) to a laptop computer. The Windows® based CDR software presents this data in easy-to-read graphs and tables.

Q: What is an airbag module (SDM)?

A: The airbag module is the vehicle's "computer" that controls airbag deployment. Since 1990, recordable airbag modules were installed in selected GM vehicles. (SDM, Sensing and Diagnostic Module, is the name given to air bag modules used in General Motors vehicles from 1994 to present.)

Q: What data can be downloaded from the vehicle's airbag module?

A*:

- **Vehicle speed (5 seconds before impact)**
- **Engine speed (5 seconds before impact)**
- **Brake status (5 seconds before impact)**
- **Throttle position (5 seconds before impact)**
- State of driver's seat belt switch (On/Off)
- Passenger's airbag enabled or disabled state (On/Off)
- SIR Warning Lamp status (On/Off)
- Time from vehicle impact to airbag deployment
- Ignition cycle count at event time
- Ignition cycle count at investigation
- Maximum ΔV for near-deployment event
- ΔV vs. time for frontal airbag deployment event
- Time from vehicle impact to time of maximum ΔV
- Time between near-deploy and deploy event (if within 5 seconds)

**Depending on the particular vehicle, all or a subset of this data may be available.*

Q: What is a Near Deployment Event?

A: There are two types of airbag module (SDM) recorded crash events. The first is the near deployment event. A Near Deployment Event is an event severe enough to "wake

up" the sensing algorithm but not severe enough to deploy the air bag(s). It contains Pre-Crash and Crash data. The SDM can store up to one Near Deployment Event. This event can be overwritten by an event that has a greater SDM recorded velocity change. This event will be cleared by the SDM after the ignition has been cycled 250 times.

Q: How many Deployment Events can be recorded?

A: The second type of SDM recorded crash event is the deployment event. It also contains Pre-Crash and Crash data. The SDM can store up to two different Deployment Events, if they occur within five seconds of one another. The first deployment event will be stored in the Deployment file (this would have been the event that deployed the air bag) and the second Deployment Event will be stored in the Near Deployment file. Deployment events can not be overwritten or cleared from the SDM. Once the SDM has deployed the air bag, the SDM must be replaced.

Q: Did GM add any cost to the consumer by installing recordable airbag modules?

A: No, GM used existing memory space in the airbag module to record data.

Q: What is included in the CDR kit?

A:

- **Crash Data Retrieval Module**
- **Windows® 95/98/ME/NT/2000 based Software (CD) (includes Help Files/Manual)**
- **Vehicle Interface Cable**
- **PC Interface Cable**
- **Airbag Module Interface Cables (3)**
- **6' Extension Cable**
- **Cigarette Lighter Power Cable**
- **AC/DC 12V Power Supply**
- **Storage Case for entire kit**

Q: How much does the CDR system (kit) cost?

A: $2,495

Q: What vehicles can the CDR system interface with?

A: ***Current CDR Vehicle Coverage***

(As of October, 2000)

1996

Make	Model
Buick	Riviera
Buick	Skylark
Chevrolet	Astro
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Express
GMC	Safari
GMC	Savana
Oldsmobile	Achieva
Oldsmobile	Aurora
Pontiac	Firebird
Pontiac	Grand AM
Pontiac	Sunfire
Saturn	All models

1997

Make	Model
Buick	Century
Buick	LeSabre
Buick	Park Avenue
Buick	Regal
Buick	Riviera
Buick	Skylark
Cadillac	Deville
Cadillac	Eldorado
Cadillac	Commercial Special
Cadillac	Seville
Chevrolet	Astro
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Corvette
Chevrolet	Express
Chevrolet	Lumina
Chevrolet	Malibu
Chevrolet	Monte Carlo
Chevrolet	Silverado
Chevrolet	Suburban
Chevrolet	Tahoe
Chevrolet	Venture
GM	EV1
GMC	Safari
GMC	Savana
GMC	Sierra
GMC	Yukon
Oldsmobile	Achieva
Oldsmobile	Aurora
Oldsmobile	Cutlass
Oldsmobile	Eighty Eight
Oldsmobile	Silhouette
Pontiac	Bonneville
Pontiac	Firebird
Pontiac	Grand AM
Pontiac	Grand Prix
Pontiac	Sunfire
Pontiac	Trans Port
Saturn	All models

1998

Make	Model
Buick	Century
Buick	LeSabre
Buick	Park Avenue
Buick	Regal
Buick	Riviera
Buick	Skylark
Cadillac	Commercial Special
Cadillac	Deville
Cadillac	Eldorado
Cadillac	Seville
Chevrolet	Astro
Chevrolet	Blazer
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Corvette
Chevrolet	Express
Chevrolet	Malibu
Chevrolet	Monte Carlo
Chevrolet	Lumina
Chevrolet	S10
Chevrolet	S10 electric
Chevrolet	Silverado
Chevrolet	Suburban
Chevrolet	Tahoe
GMC	Jimmy
GMC	Safari
GMC	Savana
GMC	Sierra
GMC	Sonoma
GMC	Yukon
Oldsmobile	Achieva
Oldsmobile	Aurora
Oldsmobile	Bravada
Oldsmobile	Cutlass
Oldsmobile	Eighty Eight
Oldsmobile	Intrigue
Pontiac	Bonneville
Pontiac	Firebird
Pontiac	Grand AM
Pontiac	Grand Prix
Pontiac	Sunfire
Saturn	All models

1999

Make	Model
Buick	Century
Buick	LeSabre
Buick	Park Avenue
Buick	Regal
Buick	Riviera
Cadillac	Commercial Special
Cadillac	Deville
Cadillac	Eldorado
Cadillac	Escalade
Cadillac	Seville
Chevrolet	Astro
Chevrolet	Blazer
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Corvette
Chevrolet	Express
Chevrolet	Lumina
Chevrolet	Malibu
Chevrolet	Monte Carlo
Chevrolet	S10
Chevrolet	S10 Electric
Chevrolet	Silverado
Chevrolet	Suburban
Chevrolet	Tahoe
GM	EV1
GMC	Jimmy
GMC	Safari
GMC	Savana
GMC	Sierra
GMC	Sonoma
GMC	Yukon
Oldsmobile	Alero
Oldsmobile	Aurora
Oldsmobile	Bravada
Oldsmobile	Cutlass
Oldsmobile	Cutlass
Oldsmobile	Eighty Eight
Oldsmobile	Intrigue
Pontiac	Bonneville
Pontiac	Firebird
Pontiac	Grand AM
Pontiac	Grand Prix
Pontiac	Sunfire
Saturn	All Models

2000

Make	Model
Buick	Century
Buick	LeSabre
Buick	Park Avenue
Buick	Regal
Cadillac	Commercial Special
Cadillac	Deville
Cadillac	Eldorado
Cadillac	Escalade
Cadillac	Seville
Chevrolet	Astro
Chevrolet	Blazer
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Corvette
Chevrolet	Express
Chevrolet	Impala
Chevrolet	Lumina
Chevrolet	Malibu
Chevrolet	Monte Carlo
Chevrolet	S10
Chevrolet	Silverado
Chevrolet	Suburban
Chevrolet	Tahoe
Chevrolet	Venture
GMC	Jimmy
GMC	Safari
GMC	Savana
GMC	Sierra
GMC	Sonoma
GMC	Yukon
Isuzu	Hombre
Oldsmobile	Alero
Oldsmobile	Bravada
Oldsmobile	Intrigue
Oldsmobile	Silhouette
Pontiac	Bonneville
Pontiac	Firebird
Pontiac	Grand Am
Pontiac	Grand Prix
Pontiac	Montana
Pontiac	Sunfire
Saturn	All but LS

2001

Make	Model
Buick	Century
Buick	Park Avenue
Buick	Regal
Cadillac	Commercial Special
Cadillac	Deville
Cadillac	Eldorado
Cadillac	Escalade
Cadillac	Seville
Chevrolet	Astro
Chevrolet	Blazer
Chevrolet	Camaro
Chevrolet	Cavalier
Chevrolet	Corvette
Chevrolet	Express
Chevrolet	Lumina
Chevrolet	Malibu
Chevrolet	S10
Chevrolet	Silverado
Chevrolet	Suburban
Chevrolet	Tahoe
Chevrolet	Venture
GMC	Jimmy
GMC	Safari
GMC	Savana
GMC	Sierra
GMC	Sonoma
GMC	Yukon
Isuzu	Hombre
Oldsmobile	Alero
Oldsmobile	Aurora
Oldsmobile	Bravada
Oldsmobile	Intrigue
Oldsmobile	Silhouette
Pontiac	Firebird
Pontiac	Grand Am
Pontiac	Grand Prix
Pontiac	Montana
Pontiac	Sunfire
Saturn	All but LS

The CDR System has the capability to download data from the airbag module on selected GM vehicles. Periodically, Vetronix will release cables and software updates that will expand coverage to older model year GM vehicles, dating back to 1990. All GM vehicles with airbags since 1990 have recordable airbag modules installed. We are also including in our CDR module the capability to download data from vehicles other than GM, by simply updating the PC software. This allows other car manufacturers to partner with Vetronix at a later date.

Q: Why is GM and Ford making this data available?

A: GM and Ford wish to collect air bag deployment and crash data in order to improve vehicle design safety features.

Q: Do other vehicle manufacturers have recordable airbag modules, and if so, why aren't they releasing this data?

A: Yes, some other vehicle manufacturers have recordable airbag modules. The amount of information recorded and the Model Year that they began installing these recordable airbag modules differs for each manufacturer. The NTSB (National Transportation Safety Board) and the NHTSA (National Highway Traffic Safety Administration) have recommended that all vehicle manufacturers equip their vehicles with recorders capable of storing crash data.

The Vetronix CDR system currently has the capability to download data from vehicles other than GM and Ford, by simply updating the PC software. This allows other car manufacturers to partner with Vetronix at a later date.

Q: When do you expect the other vehicle manufacturers to partner with Vetronix?

A: Vetronix signed an agreement with Ford Motor Company in November of 2000, allowing Vetronix to write software and build cables to interface with select 1998 and newer Ford vehicles. We expect the initial Ford upgrade to be available in the Fall/Winter of 2001. We anticipate that other vehicle manufacturers will release this type of information within the next year or two.

Q: Has the CDR system been validated?

A: Yes, GM, Ford and Vetronix have worked together to ensure the accurate retrieval and presentation of the recorded data. In addition, independent validation tests have been performed by NHTSA, TEEX, Michigan State Police, Ontario Provincial Police Department, and others.

Q: Who will be using the Vetronix CDR system?

A:

- Accident Reconstructionists
- Law Enforcement
- Insurance Adjusters
- NHTSA / NTSB
- Automobile Manufacturers
- Vehicle Fleet Managers
- Car Rental Agencies
- Others

Q: How does the CDR system download data?

A: Data can be collected from the air bag module in two ways. If the electrical system of the vehicle is intact, then the data can be read by connecting to the vehicle's DLC (located underneath the dash, it is used by technicians to talk to the vehicle's on-board computer). If this is not possible, then direct connection to the air bag module is required.

Q: Where does the airbag module (SDM) collect its data?

A: All SDM recorded data is measured, calculated, and stored internally, except for the following: Vehicle Speed, Engine Speed, and Percent Throttle data is transmitted, once a second by the Powertrain Control Module (PCM) via the Class 2 data link, to the SDM.

- Brake Switch Circuit Status data is transmitted, once a second by either the ABS module or the PCM via the Class 2 data link, to the SDM. Depending on vehicle option content, the Brake Switch Circuit Status data may not be available.
- In most vehicles, the Driver's Belt Switch Circuit is wired directly to the SDM. In some vehicles, the Driver's Belt Switch Circuit Status data is transmitted from the Body Control Module (BCM), via the Class 2 data link, to the SDM.
- The Passenger Front Air Bag Suppression Switch Circuit is wired directly to the SDM.

Q: Is all the recorded data from the airbag module downloaded by the CDR system?

A: Yes, all the data retrieved from the air bag module is downloaded and displayed on the PC.

Q: Is the Vetronix CDR system the only tool that can download this type of crash data?

A: Vetronix has exclusive rights from GM to download and convert the recorded airbag module data into a readable format. No one else has licensed access to this information.

Q: Is the data permanently stored in the vehicle's airbag module?

A: Yes, the data is permanently written in the EEPROM.

Q: How do I power up the CDR interface module?

A: There are three ways to power up the CDR interface module. First, you must determine if the crashed vehicle has its electrical system operational or not. If it is, then you can simply access the airbag module data by plugging into the OBD II connector, which will power up the CDR module.

If the vehicle's electrical system is not operational, then you must first locate the airbag module (SDM) using the chart found in the help files. Once the SDM has been found, then you have to determine if you can access it at the crash scene, or if you need to unbolt it and take it back to the office. If you decide to access it on-site, then you can plug the DC power cable into your car's cigarette lighter and power up the CDR interface module, which then powers up the SDM.

If you unbolt the SDM and take it back to the office, then you can use the 12V AC/DC power supply, which powers both the CDR interface module and the SDM.

The Vetronix CDR kit includes:

- **Crash Data Retrieval Module**
- **Windows® 95/98/ME/NT/2000 based Software (CD)**
- **Vehicle Interface Cable (OBD II)**
- **PC Interface Cable**
- **Airbag Module Interface Cables (3)**
- **6' Extension Cable**
- **Cigarette Lighter Power Cable**
- **AC/DC 12V Power Supply**
- **Storage Case for entire kit**

CDR Computer System Requirements are:

- **Windows® 95/98/ME/NT/2000**
- **15Mb free hard drive space**
- **Serial Port available**

The Vetronix CDR kit is only **$2,495**

To place an order, or if you have any questions, please call

(800) 321-4889

- **We accept Visa™, Mastercard™, American Express™, and Discover™ cards.**
- **Two-day and Overnight FedEx™ delivery is available.**

Vetronix Corporation
2030 Alameda Padre Serra
Santa Barbara, CA 93103
Fax: (805) 965-3497

Current CDR Vehicle Coverage

(As of April, 2001)

Supported GM Vehicles

(April, 2001)

1996

Make	Model	Cable	Module Location
Buick	Riviera	**02002888**	Under RF seat
Buick	Skylark	**02002888**	Under RF seat
Chevrolet	Astro	**02002888**	Under LF seat
Chevrolet	Camaro	**02002888**	Under center console
Chevrolet	Cavalier	**02002888**	Under RF seat
Chevrolet	Express	**02002888**	Under LF seat
GMC	Safari	**02002888**	Under LF seat
GMC	Savana	**02002888**	Under LF seat
Oldsmobile	Achieva	**02002888**	Under RF seat
Oldsmobile	Aurora	**02002888**	Under RF seat
Pontiac	Firebird	**02002888**	Under center console
Pontiac	Grand AM	**02002888**	Under RF seat
Pontiac	Sunfire	**02002888**	Under RF seat
Saturn	All models	**02002888**	Under center console

1997

Make	Model	Cable	Module Location
Buick	Century	**02002888**	Under RF seat
Buick	LeSabre	**02002888**	Under RF seat
Buick	Park Avenue	**02002888**	Under RF seat
Buick	Regal	**02002888**	Under RF seat
Buick	Riviera	**02002888**	Under RF seat
Buick	Skylark	**02002888**	Under RF seat
Cadillac	Commercial Special	**02002828**	Under LF seat

Cadillac	Deville	**02002828**	Under LF seat
Cadillac	Eldorado	**02002828**	Under LF seat
Cadillac	Seville	**02002828**	Under LF seat
Chevrolet	Astro	**02002888**	Under LF seat
Chevrolet	Camaro	**02002888**	Under center console
Chevrolet	Cavalier	**02002888**	Under RF seat
Chevrolet	Corvette	**02002888**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express	**02002888**	Under LF seat
Chevrolet	Lumina	**02002888**	Under RF seat
Chevrolet	Malibu	**02002888**	Under RF seat
Chevrolet	Monte Carlo	**02002888**	Under RF seat
Chevrolet	Silverado	**02002888**	Under LF seat
Chevrolet	Suburban	**02002888**	Under LF seat
Chevrolet	Tahoe	**02002888**	Under LF seat
Chevrolet	Venture	**02002888**	Under RF seat
GM**1**	EV1	**02002888**	RF side of battery pack tunnel near IP
GMC	Safari	**02002888**	Under LF seat
GMC	Savana	**02002888**	Under LF seat
GMC	Sierra	**02002888**	Under LF seat
GMC	Yukon	**02002888**	Under LF seat
Oldsmobile	Achieva	**02002888**	Under RF seat
Oldsmobile	Aurora	**02002888**	Under RF seat
Oldsmobile	Cutlass	**02002888**	Under RF seat
Oldsmobile	Eighty Eight	**02002888**	Under RF seat
Oldsmobile	Regency	**02002888**	Under RF seat
Oldsmobile	Silhouette	**02002888**	Under RF seat
Pontiac	Bonneville	**02002888**	Under RF seat
Pontiac	Firebird	**02002888**	Under center console
Pontiac	Grand AM	**02002888**	Under RF seat
Pontiac	Grand Prix	**02002888**	Under RF seat
Pontiac	Sunfire	**02002888**	Under RF seat
Pontiac	Trans Sport	**02002888**	Under RF seat
Saturn	All models	**02002888**	Under center console

1998

Make	Model	Cable	Module Location
Buick	Century	**02002888**	Under RF seat
Buick	LeSabre	**02002888**	Under RF seat
Buick	Park Avenue	**02002828**	Under RF seat
Buick	Regal	**02002888**	Under RF seat
Buick	Riviera	**02002888**	Under RF seat
Buick	Skylark	**02002888**	Under RF seat
Cadillac	Commercial Special	**02002828**	Under LF seat
Cadillac	Deville	**02002828**	Under LF seat
Cadillac	Eldorado	**02002828**	Under RF seat
Cadillac	Seville	**02002828**	Under RF seat
Chevrolet	Astro	**02002888**	Under LF seat
Chevrolet	Blazer	**02002888**	Under center console
Chevrolet	Camaro	**02002888**	Under center console
Chevrolet	Cavalier	**02002888**	Under RF seat
Chevrolet	Corvette	**02002888**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express	**02002888**	Under LF seat
Chevrolet	Malibu	**02002888**	Under RF seat
Chevrolet	Monte Carlo	**02002888**	Under RF seat
Chevrolet	Lumina	**02002888**	Under RF seat
Chevrolet	S10	**02002888**	Under center console
Chevrolet	S10 electric	**02002888**	Under center console
Chevrolet	Silverado	**02002888**	Under LF seat
Chevrolet	Suburban	**02002888**	Under LF seat
Chevrolet	Tahoe	**02002888**	Under LF seat
GMC	Jimmy	**02002888**	Under center console
GMC	Safari	**02002888**	Under LF seat
GMC	Savana	**02002888**	Under LF seat
GMC	Sierra	**02002888**	Under LF seat
GMC	Sonoma	**02002888**	Under center console
GMC	Yukon	**02002888**	Under LF seat
Oldsmobile	Achieva	**02002888**	Under RF seat
Oldsmobile	Aurora	**02002888**	Under RF seat
Oldsmobile	Bravada	**02002888**	Under center console
Oldsmobile	Cutlass	**02002888**	Under RF seat

Oldsmobile	Eighty Eight	**02002888**	Under RF seat
Oldsmobile	Intrigue	**02002888**	Under RF seat
Pontiac	Bonneville	**02002888**	Under RF seat
Pontiac	Firebird	**02002888**	Under center console
Pontiac	Grand AM	**02002888**	Under RF seat
Pontiac	Grand Prix	**02002888**	Under RF seat
Pontiac	Sunfire	**02002888**	Under RF seat
Saturn	All models	**02002888**	Under center console

1999

Make	Model	Cable	Module Location
Buick	Century	**02002829**	Under RF seat
Buick	Le Sabre	**02002888**	Under RF seat
Buick	Park Avenue	**02002828**	Under RF seat
Buick	Regal	**02002829**	Under RF seat
Buick	Riveria	**02002888**	Under RF seat
Cadillac	Commercial Special	**02002828**	Under LF seat
Cadillac	Deville	**02002828**	Under LF seat
Cadillac	Eldorado	**02002828**	Under LF seat
Cadillac	Escalade	**02002888**	Under LF seat
Cadillac	Seville	**02002828**	Under RF seat
Chevrolet	Astro	**02002888**	Under LF seat
Chevrolet	Blazer	**02002888**	Under center console
Chevrolet	Camaro	**02002829**	Under center console
Chevrolet	Cavalier	**02002888**	Under RF seat
Chevrolet	Corvette	**02002888**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express	**02002888**	Under LF seat
Chevrolet	Lumina	**02002888**	Under RF seat
Chevrolet	Malibu	**02002888**	Under RF seat
Chevrolet	Monte Carlo	**02002888**	Under RF seat
Chevrolet	S10	**02002888**	Under center console
Chevrolet	S10 Electric	**02002888**	Under center console
Chevrolet	Silverado	**02002888**	Under LF seat
Chevrolet	Suburban	**02002888**	Under LF seat
Chevrolet	Tahoe	**02002888**	Under LF seat

GM[1]	EV1	**02002888**	RF side of battery pack tunnel, near IP
GMC	Jimmy	**02002888**	Under center console
GMC	Safari	**02002888**	Under LF seat
GMC	Savana	**02002888**	Under LF seat
GMC	Sierra	**02002888**	Under LF seat
GMC	Sonoma	**02002888**	Under center console
GMC	Yukon	**02002888**	Under LF seat
Oldsmobile	Alero	**02002888**	Under RF seat
Oldsmobile	Aurora	**02002888**	Under RF seat
Oldsmobile	Bravada	**02002888**	Under center console
Oldsmobile	Cutlass	**02002888**	Under RF seat
Oldsmobile	Eighty Eight	**02002888**	Under RF seat
Oldsmobile	Intrigue	**02002888**	Under RF seat
Pontiac	Bonneville	**02002888**	Under RF seat
Pontiac	Firebird	**02002829**	Under center console
Pontiac	Grand AM	**02002888**	Under RF seat
Pontiac	Grand Prix[2]	**02002829**	Under RF seat
Pontiac	Sunfire	**02002888**	Under RF seat
Saturn[3]	All Models[2]	**02002829**	Under center console

2000

Make	Model	Cable	Module Location
Buick	Century	**02002829**	Under RF seat
Buick	LeSabre	**02002829**	Under center console
Buick	Park Avenue	**02002829**	Under center console
Buick	Regal	**02002829**	Under RF seat
Cadillac	Commercial Special	**02002829**	Under center console
Cadillac	Deville	**02002829**	Under center console
Cadillac	Eldorado	**02002828**	Under LF seat
Cadillac	Escalade	**02002888**	Under LF seat
Cadillac	Seville	**02002829**	Under RF seat
Chevrolet	Astro	**02002829**	Under LF seat
Chevrolet	Blazer	**02002829**	Under center console
Chevrolet	Camaro	**02002829**	Under center console
Chevrolet	Cavalier	**02002829**	Under RF seat

Chevrolet	Corvette	**02002829**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express	**02002888**	Under LF seat
Chevrolet	Impala	**02002829**	Under RF seat
Chevrolet	Lumina	**02002888**	Under RF seat
Chevrolet	Malibu	**02002829**	Under RF seat
Chevrolet	Monte Carlo	**02002829**	Under RF seat
Chevrolet	S10	**02002829**	Under center console
Chevrolet	Silverado	**02002829**	Under LF seat
Chevrolet[4]	Silverado	**02002888**	Under LF seat
Chevrolet	Suburban	**02002829**	Under LF seat
Chevrolet[4]	Suburban	**02002888**	Under LF seat
Chevrolet	Tahoe	**02002829**	Under LF seat
Chevrolet[4]	Tahoe	**02002888**	Under LF seat
Chevrolet	Venture	**02002829**	Under RF seat
GMC	Jimmy	**02002829**	Under center console
GMC	Safari	**02002829**	Under LF seat
GMC	Savana	**02002888**	Under LF seat
GMC	Sierra	**02002829**	Under LF seat
GMC[4]	Sierra	**02002888**	Under LF seat
GMC	Sonoma	**02002829**	Under center console
GMC	Yukon	**02002829**	Under LF seat
GMC[4]	Yukon	**02002888**	Under LF seat
Isuzu	Hombre	**02002829**	Under center console
Oldsmobile	Alero	**02002829**	Under RF seat
Oldsmobile	Bravada	**02002829**	Under center console
Oldsmobile	Intrigue	**02002829**	Under RF seat
Oldsmobile	Silhouette	**02002829**	Under RF seat
Pontiac	Firebird	**02002829**	Under center console
Pontiac	Grand Am	**02002829**	Under RF seat
Pontiac	Grand Prix	**02002829**	Under RF seat
Pontiac	Montana	**02002829**	Under RF seat
Pontiac	Sunfire	**02002829**	Under RF seat
Saturn	All but LS	**02002829**	Under center console

2001

Make	Model	Cable	Module Location
Buick	Century	**02002829**	Under RF seat
Buick	LeSabre	**02002829**	Under center console
Buick	Park Avenue	**02002829**	Under center console

Buick	Regal	**02002829**	Under RF seat
Buick	Rendezvous	**02002829**	Under RF seat
Cadillac	Commercial Special	**02002829**	Under center console
Cadillac	Deville	**02002829**	Under center console
Cadillac	Eldorado	**02002828**	Under LF seat
Cadillac	Escalade	**02002829**	Under LF seat
Cadillac	Seville	**02002829**	Under RF seat
Chevrolet	Astro	**02002829**	Under LF seat
Chevrolet	Blazer	**02002829**	Under center console
Chevrolet	Camaro	**02002829**	Under center console
Chevrolet	Cavalier	**02002829**	Under RF seat
Chevrolet	Corvette	**02002829**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express²	**02002829**	Under LF seat
Chevrolet	Impala	**02002829**	Under RF seat
Chevrolet	Lumina	**02002888**	Under RF seat
Chevrolet	Malibu	**02002829**	Under RF seat
Chevrolet	Monte Carlo	**02002829**	Under RF seat
Chevrolet	S10	**02002829**	Under center console
Chevrolet	Silverado	**02002829**	Under LF seat
Chevrolet	Suburban	**02002829**	Under LF seat
Chevrolet	Tahoe	**02002829**	Under LF seat
Chevrolet	Venture	**02002829**	Under RF seat
GMC	Jimmy	**02002829**	Under center console
GMC	Safari	**02002829**	Under LF seat
GMC	Savana²	**02002829**	Under LF seat
GMC	Sierra	**02002829**	Under LF seat
GMC	Sonoma	**02002829**	Under center console
GMC	Yukon	**02002829**	Under LF seat
Isuzu	Hombre	**02002829**	Under center console
Oldsmobile	Alero	**02002829**	Under RF seat
Oldsmobile	Aurora	**02002829**	Under center console
Oldsmobile	Bravada	**02002829**	Under center console
Oldsmobile	Intrigue	**02002829**	Under RF seat
Oldsmobile	Silhouette	**02002829**	Under RF seat
Pontiac	Aztek	**02002829**	Under RF seat
Pontiac	Bonneville	**02002829**	Under center console
Pontiac	Firebird	**02002829**	Under center console

Pontiac	Grand Am	**02002829**	Under RF seat
Pontiac	Grand Prix	**02002829**	Under RF seat
Pontiac	Montana	**02002829**	Under RF seat
Pontiac	Sunfire	**02002829**	Under RF seat
Saturn	All but LS	**02002829**	Under center console

2002

Make	Model	Cable	Module Location
Buick	Century	**02002829**	Under RF seat
Buick	LeSabre	**02002829**	Under center console
Buick	Park Avenue	**02002829**	Under center console
Buick	Regal	**02002829**	Under RF seat
Buick	Rendezvous	**02002829**	Under RF seat
Cadillac	Eldorado	**02002828**	Under LF seat
Cadillac	Escalade	**02002829**	Under LF seat
Cadillac	Seville	**02002829**	Under RF seat
Chevrolet	Avalanche	**02002829**	Under center console
Chevrolet	Astro	**02002829**	Under LF seat
Chevrolet	Blazer	**02002829**	Under center console
Chevrolet	Camaro	**02002829**	Under center console
Chevrolet	Cavalier	**02002829**	Under RF seat
Chevrolet	Corvette	**02002829**	Behind accessory trim plate, under heater and AC control head
Chevrolet	Express[2]	**02002829**	Under LF seat
Chevrolet	Impala	**02002829**	Under RF seat
Chevrolet	Malibu	**02002829**	Under RF seat
Chevrolet	S10	**02002829**	Under center console
Chevrolet	Silverado	**02002829**	Under LF seat
Chevrolet	Suburban	**02002829**	Under LF seat
Chevrolet	Tahoe	**02002829**	Under LF seat
Chevrolet	TrailBlazer	**02002829**	Under center console
GMC	Envoy	**02002829**	Under center console

GMC	Safari	**02002829**	Under LF seat
GMC	Savana[2]	**02002829**	Under LF seat
GMC	Sierra	**02002829**	Under LF seat
GMC	Sonoma	**02002829**	Under center console
GMC	Yukon	**02002829**	Under LF seat
Isuzu	Hombre	**02002829**	Under center console
Oldsmobile	Alero	**02002829**	Under RF seat
Oldsmobile	Aurora	**02002829**	Under center console
Oldsmobile	Bravada	**02002829**	Under center console
Oldsmobile	Intrigue	**02002829**	Under RF seat
Pontiac	Aztek	**02002829**	Under RF seat
Pontiac	Bonneville	**02002829**	Under center console
Pontiac	Firebird	**02002829**	Under center console
Pontiac	Grand Am	**02002829**	Under RF seat
Pontiac	Grand Prix	**02002829**	Under RF seat
Pontiac	Sunfire	**02002829**	Under RF seat
Saturn	All but LS	**02002829**	Under center console

1. Please connect directly to the SDM for EV1 electric cars.

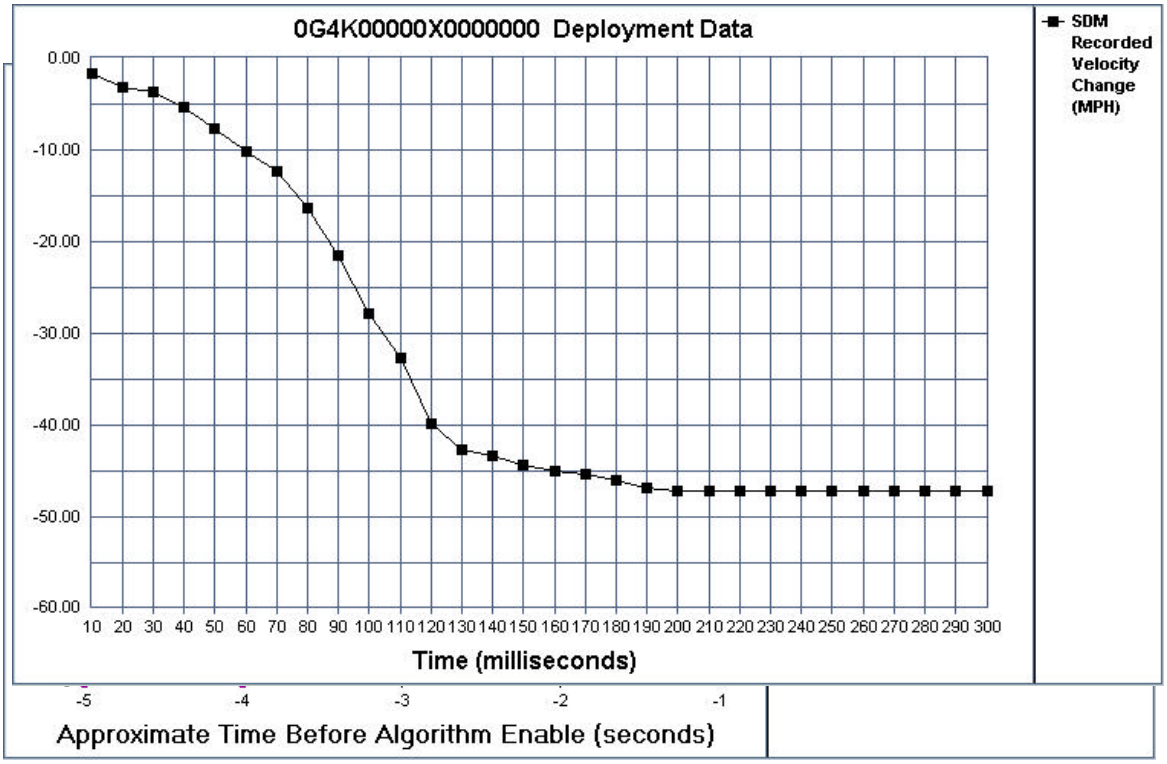
2. Does not record pre-crash data.

3. 1999 Saturn vehicle's DLC port has a non-standard wiring configuration and does not interface with the Vetronix OBD II interface cable (02002837). Please connect directly to the SDM, or contact Vetronix for more information.

These trucks have different SDMs depending upon body style. If the eighth digit of the VIN is either F, J, or R, please use the 02002888 cable.

The CDR System has the capability to download data from the airbag module on selected GM vehicles. Periodically, Vetronix will release cables and software updates that will expand coverage to older model year GM vehicles, dating back to 1990. We are also including in our CDR module the capability to download data from vehicles other than GM and Ford, by simply updating the PC software. This allows other car manufacturers to partner with Vetronix at a later date.

The following are sample screens from the CDR software:



0G4K00000X0000000 System Status At Deployment	
SIR Warning Lamp Status	OFF
Driver's Belt Switch Circuit Status	UNBUCKLED
Passenger Front Air Bag Suppression Switch Circuit Status	Air Bag Not Suppressed
Ignition Cycles At Deployment	187
Ignition Cycles At Investigation	213
Time From Algorithm Enable to Deployment Command Criteria Met (msec)	18.75
Time From Algorithm Enable to Pretensioner Deployment Command Criteria Met (msec)	18.75
Time Between Near Deployment And Deployment Events (sec)	N/A

Time (milliseconds)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Recorded Velocity Change (MPH)	-1.54	-3.07	-3.51	-5.27	-7.68	-10.09	-12.29	-16.24	-21.50	-27.86	-32.69	-39.93	-42.78	-43.44	-44.32
Time (milliseconds)	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
Recorded Velocity Change (MPH)	-44.98	-45.42	-46.07	-46.95	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17	-47.17

PRE-CRASH DATA			Electronic Data Validity Check Status = VALID	
Seconds Before AE	**Vehicle Speed (MPH)**	**Engine Speed (RPM)**	**Percent Throttle**	**Brake Switch Circuit Status**
-5	57	4032	100	OFF
-4	65	4160	70	OFF
-3	62	2304	2	ON
-2	55	1088	2	ON
-1	47	896	2	ON